Amendments to the Drawings:

The attached 34 sheets of drawings include changes to Figure 16A. Figure 16A corrects the typographical error, which was located in the second line of the drawing. The SMP number was incorrectly listed as "248" and has been corrected to read "348". These sheets, which include Fig. 16A, replace the original sheets including Fig. 16A.

Attachment: 34 Replacement Sheets, Figures 1A - 26C

Serial No. 09/543,407 Docket No. 920043.406 JIN 7 2004 Inventor(s): Aaron P. White et al. Express Mail No. EV449559618US "REPLACEMENT SHEET" S. enteritidis agfA gene JUN 0 2 2004 foreign *Eco*RI epitope D *Hin*d III Rxn 1 A/B Rxn 2 C/D Fig. 1A Final Reaction **Eco**RI Hind III

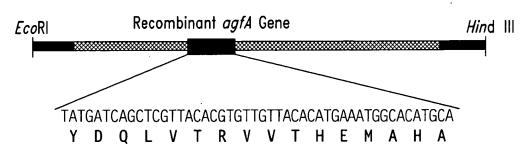
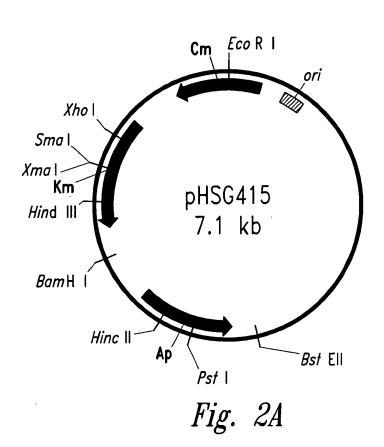
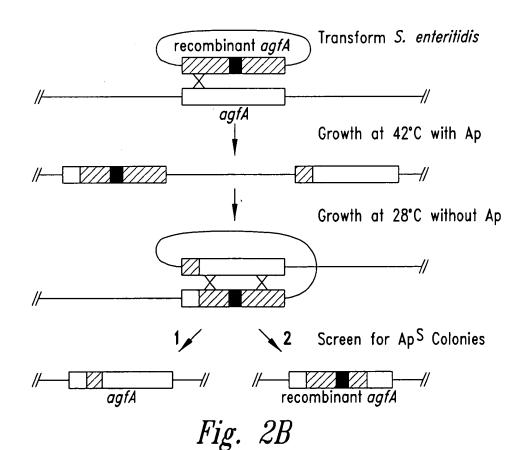


Fig. 1B

Fig. 1C











PT3 epitope of *L. major*

YDQLVTRVVTHEMAHA

Fig. 3A

AgfA amino acid sequence 0 A1 C5e 113 SSVMVRQ 131 VGFG NNATANQ Y *****__ A10 **A**7 **A**1 C5d 91 SDITVGQ YGGN NAALVNQ 112 A10 **A6** NGFR NNATIDQ WNAKN C5c 68 STIELTQ 90 <<<* <u>8A</u> **A5** GADN **** SGYG NGADVGQ C5b 46 SETTITQ 67 -<<* Α8 **A4** YGSA -*** NAALALQ SDARK 45 C5a 23 STLSIYQ **A3** 22 N GVVPQWGGGGNHNGGGNSSGPD

Fig. 3B





Parallel β -helix model of AgfA

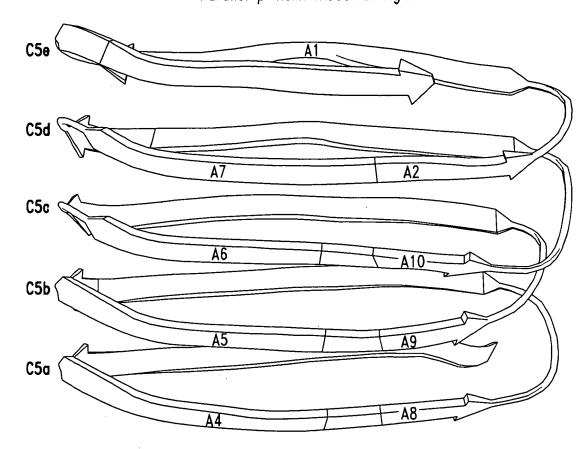
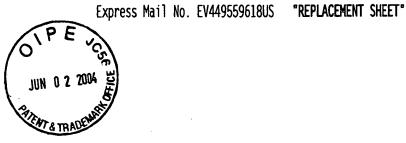


Fig. 3C

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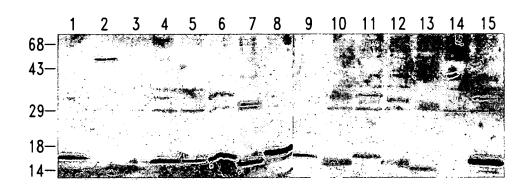


Fig. 4A



Fig. 4B



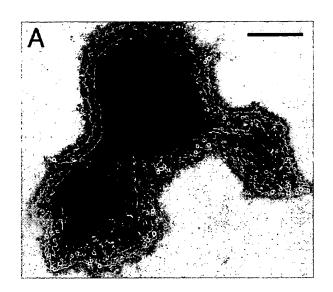


Fig. 5A

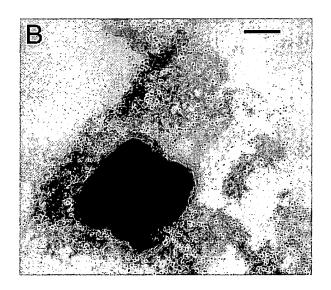


Fig. 5B

JUN 7 2004





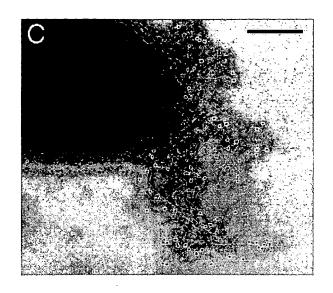


Fig. 5C

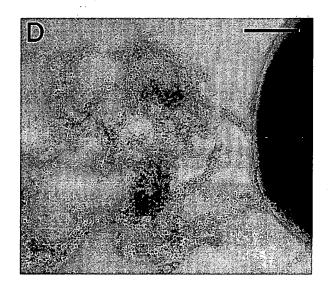
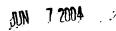


Fig. 5D





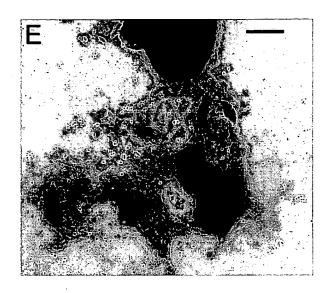


Fig. 5E

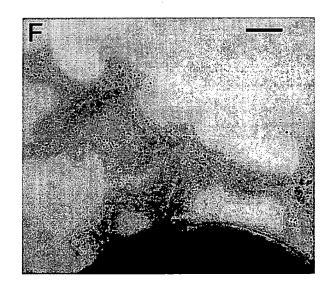


Fig. 5F





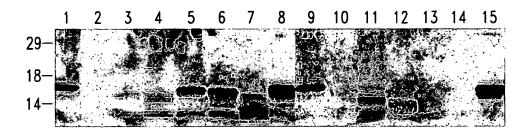


Fig. 6A



Fig. 6B





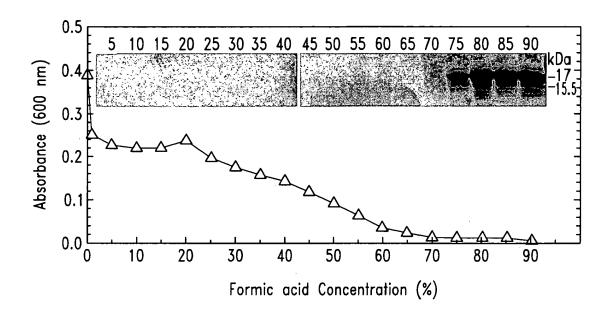


Fig. 7

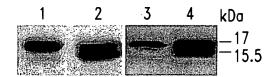


Fig. 8

Serial No. 09/543,407 Docket No. 920043.406 Inventor(s): Aaron P. White et al. "REPLACEMENT SHEET"

Express Mail No. EV449559618US <u>(19</u>

(109)

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43

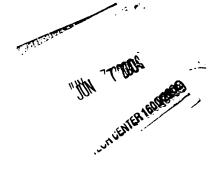
C2a C2b

3 >1

 \vee z z \circ $S \sim S$ A A A A0 5 Z H 9 · 3 · > S 0000 S N N O C L \forall > \vdash > \forall \mathfrak{S} G **4444** \mathfrak{G} A D Z A Z Z エ zzzzz 8 2 2 2 5 $S > H \oplus H$ G 0 0 0 G > \(Z > > G G 0000 3 ۵. $rac{1}{2}$ 50000 9 23 46 68 91 113 C5a C5b C5c C5c C5d C5d

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1 3 5 7 9 12 14 16 18 S x x x x x Q x G x x N x A x x x Q (x) x A x x

Fig. 9D

	$S \times I \Phi I \times Q$	$N \times I \Phi I \times Q$
C5a	LSI	ALA
C5b	TTI	$\overrightarrow{A D} V$
C5c	ĪEL	ΑΤΙ
C5d	ΙΤV	ΑLV
C5e	VMV	$\overline{A} \overline{T} A$

Fig. 9E





aix hie gar gib nnp		P Q c c c e e e e	W G c c c c e c	c c c c t c	C C C	N H c c c c e e	C C C	Gcctc	c c t	Gcctc	N C C C C		S c c c c	G F C C C C C C				
23 aix hie gar gib nnp	S T L c e e c c e e e e e e e	S I e e e e e e e e e e	Y Q e e e e e e e	Y G C C C C e C e C	CCC	C C C	Nhhhhh	Ahhhhh	Ahhhh	L h h h h h	h h h	hhh	Qhhhhh	Shhhhh	Dhchh	Acchh	R c c h	Kcchc
46 aix hie gar gib nnp	S E T c c e c c e c e e c e e	T I e e e e e e e e e	T Q c e e e e e e	S G c c e t e e	cct	Gcccc	N C C C C	Gccec	c c e	D c c e e		c c e	Q c c e e		Gcccc	Acccc	C C	\mathbb{N}
68 aix hie gar gib nnp	S T I C e e c e e e e e e e e e e e e e e e e	E L e e e e e e e h	T Q c c e e h	N G c c t t h c	CCt	R c c c e	N c c c c	C C C	h c e h	T h c e h		hee	Qhh eh	Whceh	Nh c ch	Accch	Kcccc	Ncctc
91 aix hie gar gib nnp	S D I C C e C C e C C e e	T V e e e e e e e e e e	G c e e e e e	Y G C C C C e C	CCC	N C C C C	N c c c c	Aheeh	h e e	L h e e e h	e e e	h e e	Qh c e e		T c c e c	Acccc	Scccc	Dcctc
113 aix hie gar gib nnp	S S V c c e c e e e e e c c e	M V e e e e e e e e	R e e e e e	V G e e e e e e	CCC	Gcccc	Ncccc	NCCCC	ACCCC	Tcccc	C	C	Q c c e h	Y c c e e				

JUN 0 2 2004 B



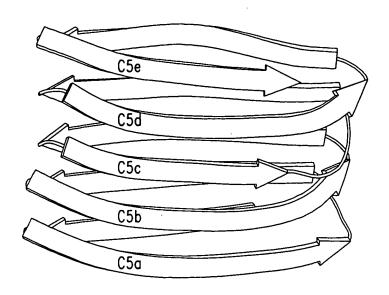


Fig. 11A

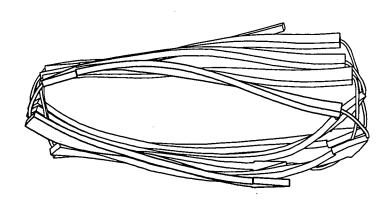


Fig. 11B





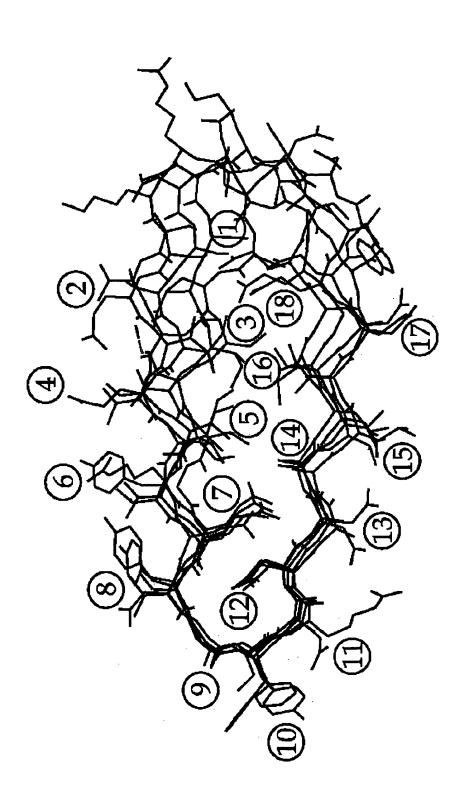


Fig. 11C





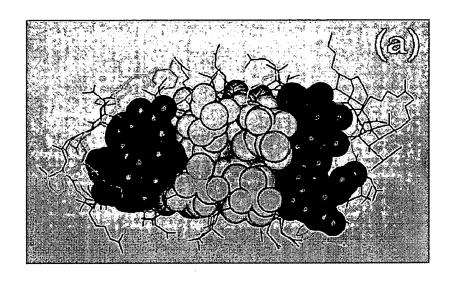


Fig. 12A

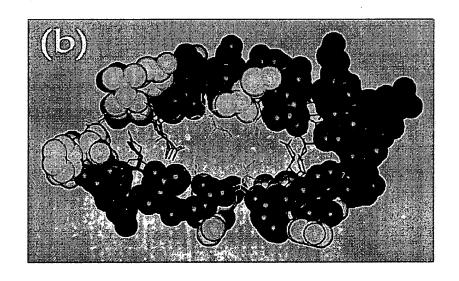
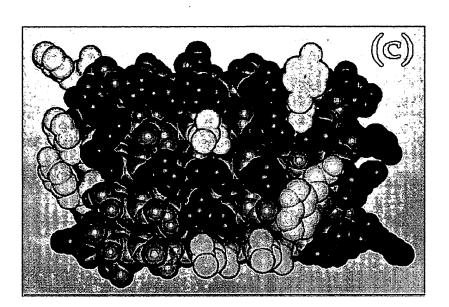


Fig. 12B





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Fig. 12C

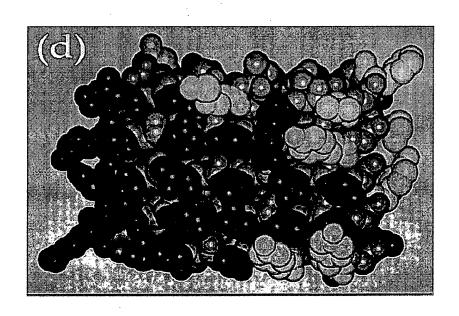


Fig. 12D





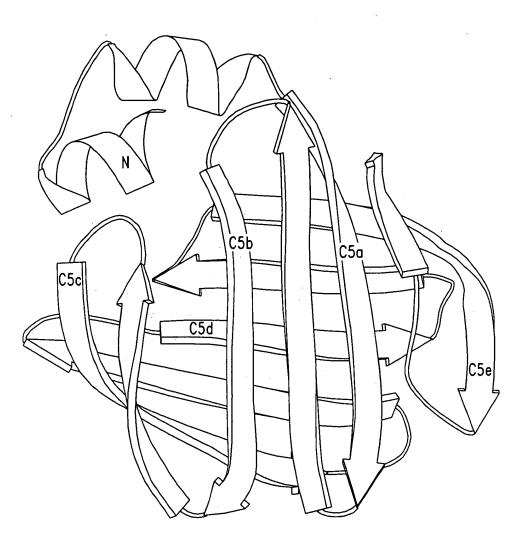


Fig. 13A





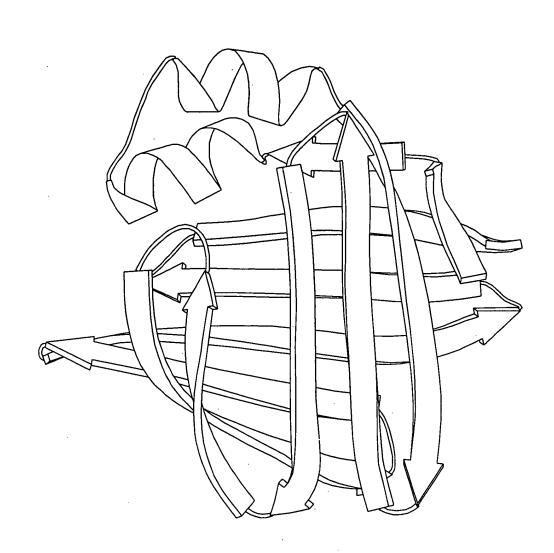


Fig. 13B





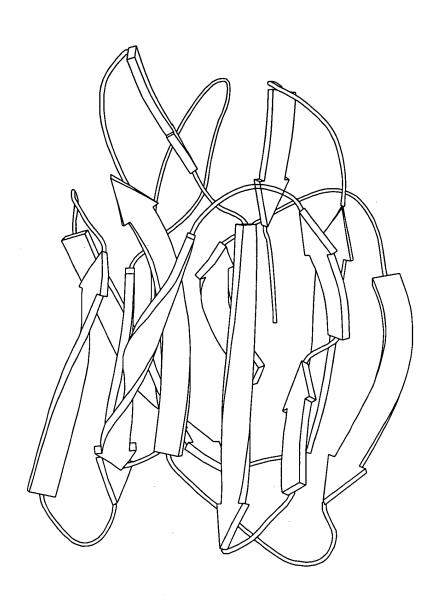


Fig. 14A



JUN 7 2004

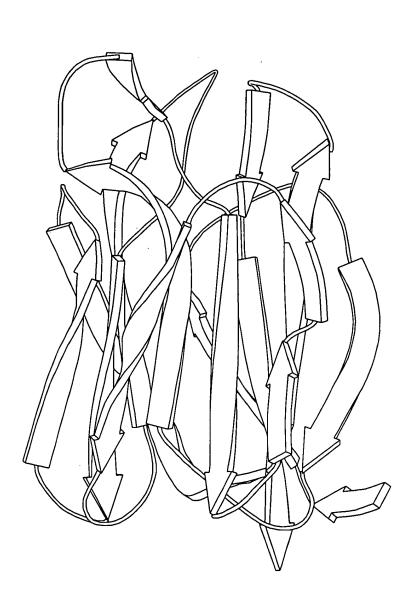


Fig. 14B





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			İ	ф	j									j	ф	i							
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	S	Ţ	L	S	I	Υ	Q	Υ	G	S	A	N	Α	Α	L	À	L	Q	S	D	A	R	K
AgfA	S	E	T	T	I	T	Q	S	G	Y	G	N	G	Α	D	V	G	Q	-	G	Α	D	N
	S	T	I	Ε	L	T	Q	N	G	F	R	N	N	Α	T	I	D	Q	W	N	A	K	N
	S	D	I	T	V	G	0	Υ	G	G	N	N	Α	Α	L	٧	N	Q	-	Ţ	A	S	D
	S	S	٧	M	V	R	Q	٧	G	F	G	N	N	Α	T	Α	N	Q	Y				
	S	Ε	L	N	I	Υ	Q	Υ	G	G	G	N	S	A	L	Α	L	Q	T	D	A	R	N
CsgA	S	D	L	T	I	Ţ	Q	H	G	G	G	N	G	A	D	٧	G	Q	-	G	S	D	D
	S	S	I	D	L	T	Q	R	G	F	G	N	S	Α	T	L	D	Q	W	N	G	K	N
	S	Ε	M	T	٧	K	Q	F	G	G	G	N	G	Α	Α	٧	D	Q	-	T	Α	S	N
	S	S	٧	N	V	T	Q	V	G	F	G	N	N	Α	T	A	Н	Q	Y				

Fig. 15

Serial No. 09/543,407 Docket No. 920043.406

Inventor(s): Aaron P. White et al.

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SMP	328 348 366	I		٧	L	K	G	G	Α	G	-	N	D	•	٧	L	F	G G F	G	G	G	Α	D	347 365 383
AgfA	23 46 68	S	E	T	T	I	T	Q	S	G	Υ	G	N	G	Α	D	٧	G	Q	G	Α	D	N	45 67 90

Fig. 16A

PMP	VIISKKGDIITIRT-ESPFKNTE 61 ISFKLGQEFEE TTA DNRKTKSTVTL 86
AgfA	LSIYQYGSANA ALA LQSDARKSE 47 TTITQSGYGNG ADV GQGADNST IEL 72

Fig. 16B

VMO-I	37	F A F S L Q	L	R	S	Ε	K	S	Q	G	G	G	D	D	T	Α	Α	N	N	52 105 156
	70		L	•	T	Q	-	-	N	G	F	R	N	N	Α	T	I	D	Q	40 85 130

Serial No. 09/543,407 Docket No. 920043.406
Inventor(s): Aaron P. White et al.

Express Mail No. EV449559618US "REPLACEMENT SHEET"

S. enteritidis target gene

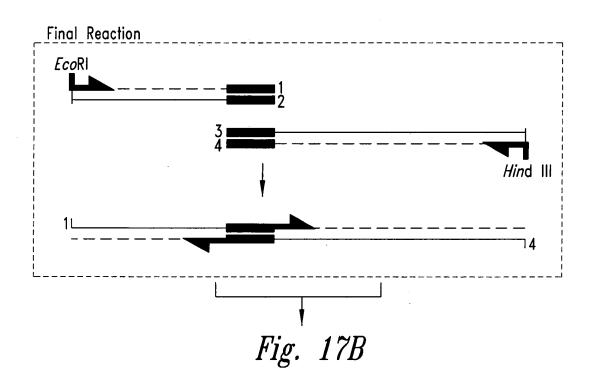
foreign epitope

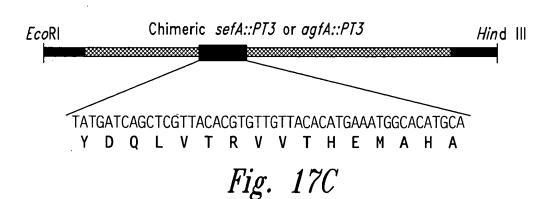
C

Rxn 1 A/B

Rxn 2 C/D

Fig. 17A





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Express Mail No. EV449559618US "REPLACEMENT SHEET"



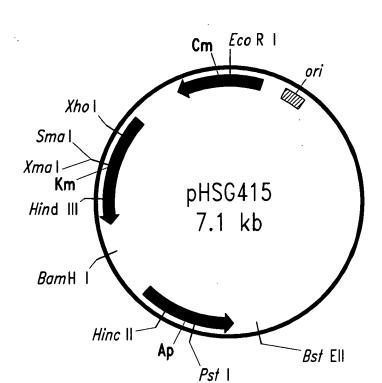


Fig. 18A

JUN 7 2004

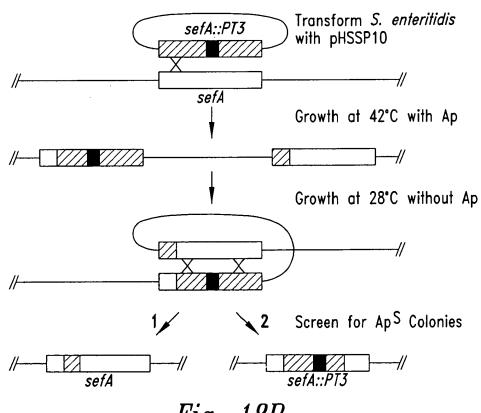


Fig. 18B



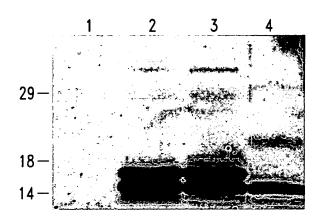


Fig. 19A

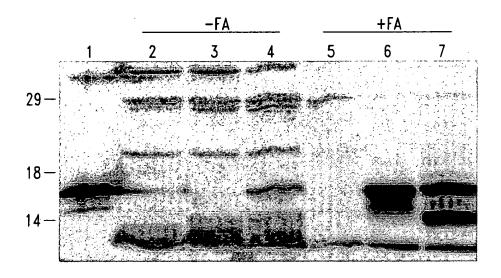


Fig. 19B

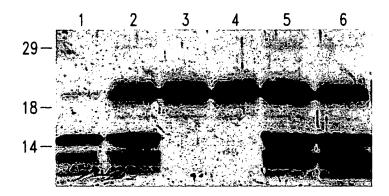


Fig. 20





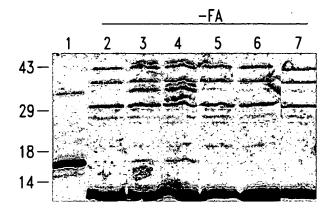


Fig. 21A

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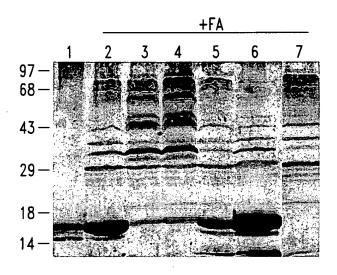


Fig. 21B

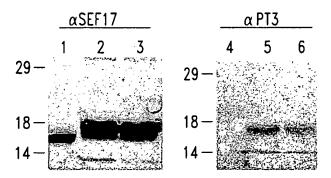


Fig. 22





PT3 epitope of *L. major*

YDQLVTRVVTHEMAHA

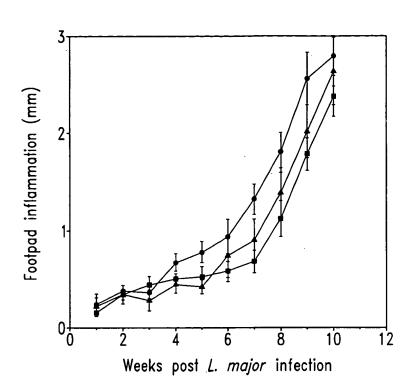
Fig. 23A

SefA amino acid sequence

	S1	S10	
1	AGFVGNKAVVQAAVTI	AAQNTTSANWSQDP	30
	·	S6	
31	S10 GFTGPAVAAGQKVGTLS	S2	60
	\$6 \$2	\$7 53	
61	GKGASVSGGVATVPFV	OGQGQPVFRGRIQG	90
91	S7 SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	S4 NRVASSQETLNVPV	120
	S5 S9	· ************************************	
	S4		
121	TTFGKSTLPAGFTATFY	VQQYQN	144

Fig. 23B





JA 7 2004

Fig. 24A

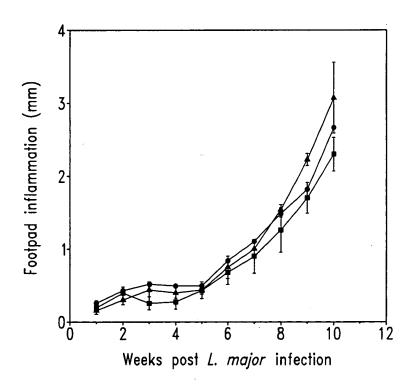
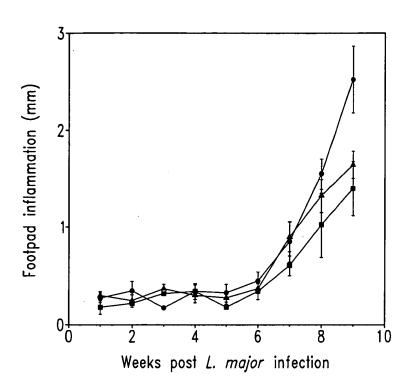


Fig. 24B





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Fig. 24C

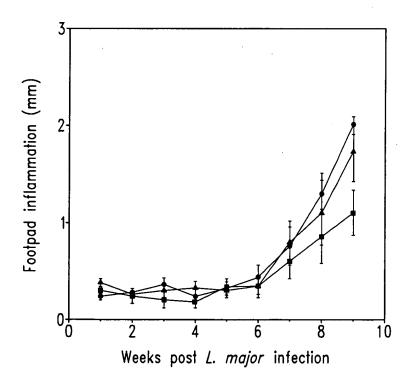


Fig. 24D

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JUN 0 2 2004

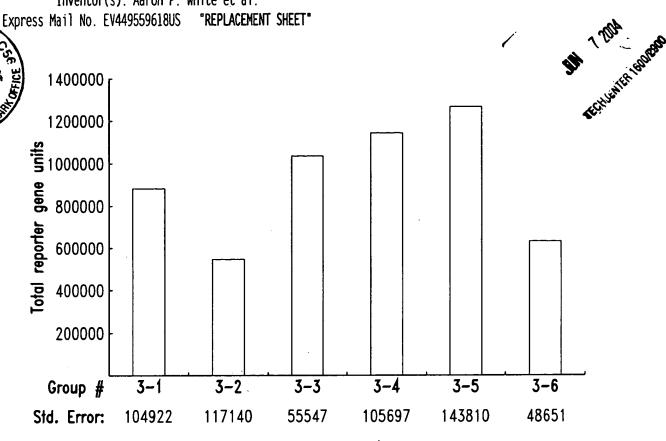


Fig. 25A

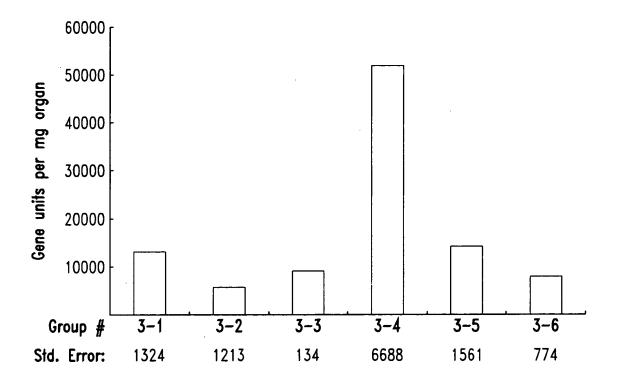
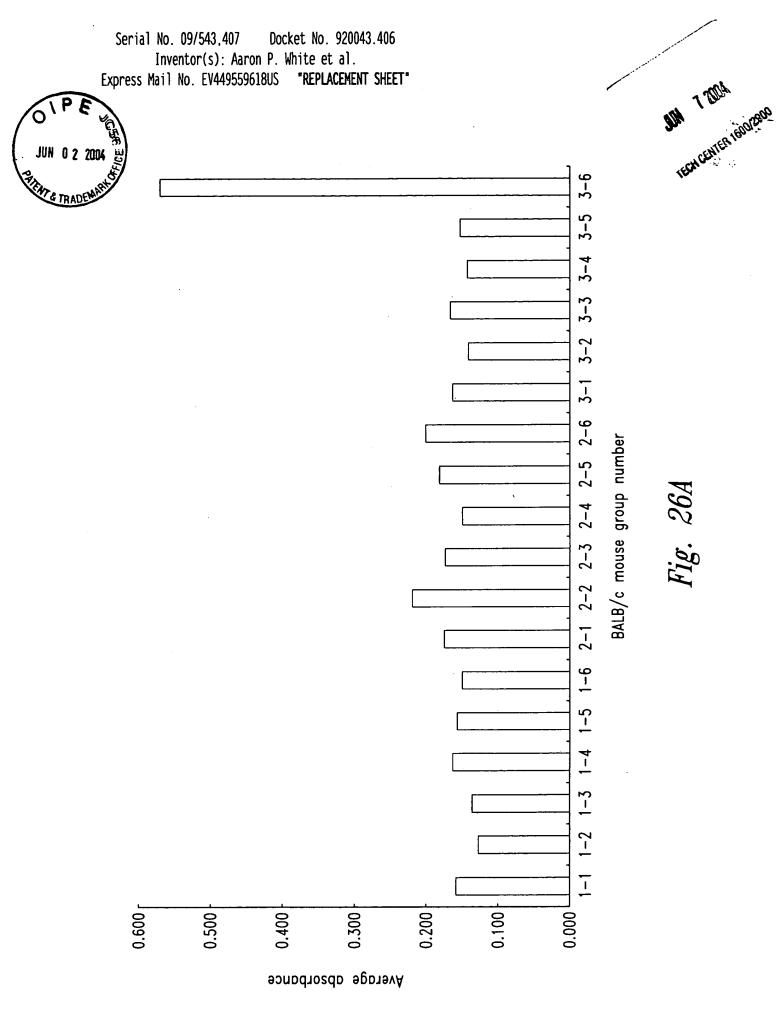
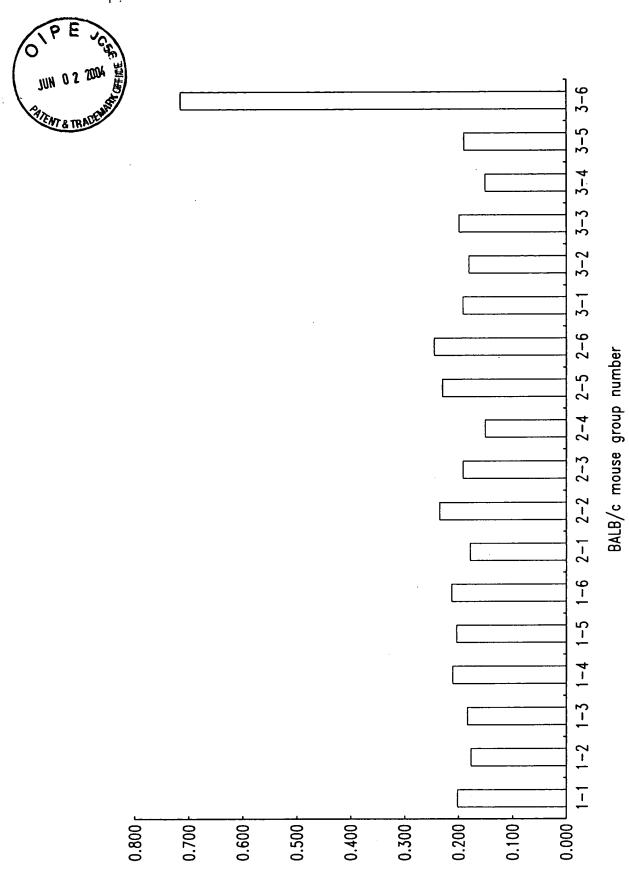


Fig. 25B







учегаде аргогрансе

Fig 26B

